UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,912	10/12/2001	Jyh-Cheng Chen	APP 1375-US	9246

9941   7590   07/25/2005

TELCORDIA TECHNOLOGIES, INC.
ONE TELCORDIA DRIVE 5G116
PISCATAWAY, NJ 08854-4157

EXAMINER
LE, VIET Q

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/975,912	CHEN ET AL.
	Examiner	Art Unit
	Viet Q. Le	2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _12 October 2001_.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-15_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _10/12/2001_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Agrawal

et al. (U.S. 6,628,943), hereinafter referred to as Agrawal.

        Regarding claims 1 & 7, Agrawal disclosed a method for carrying out soft handoff

of a mobile station from a first base station (Figure 11A, BS1110) served by a first wire

line subnet (IP network containing host 1106. Column 12, lines 45-48) to a second base

station (Figure 11A, BS1150) served by a second wire line subnet (IP network 101

containing host 1107. Column 12, lines 45-48), wherein each subnet has a link layer

different than the link layer of the wireless network serving the mobile station (Column

12, lines 45-61. Soft hand-off occur at layer 2); and the mobile station has initially a first

IP address compatible with the first wire line subnet (Column 13, lines 52-60) and

wherein the first base station is served by a nearest router (Column 15, lines 7-9), the

method comprising:

Storing the first IP address (Column 13, lines 52-59) and a shadow address

(Column 13, lines 30-50. Shadow address is the MAC address) in the nearest router

(Column 13, lines 60-66. Column 15, lines 7-9. Forwarding table is stored at router), the

shadow address (Column 13, lines 30-50. Shadow address is the MAC address)

corresponding to the mobile station and having a format compatible with the link layer of

the first wireless subnet.

Assigning a second IP address (Figure 11A. Mobile terminal is assigned with a

second IP address when the terminal move closer based on SNR to another base

station BS 1155. Column 12, lines 45-61. Column 13, lines 51-60) to the mobile station

compatible with the second wire line subnet.

Communicating the second IP address (Column 13, lines 50-59. New IP address

associated with BS1155) from the mobile station to nearest router (Column 15, lines 6-

9) via the first base station (Figure 11A, BS 1155), and

Transmitting a frame containing the packet as conveyed by the sending device

from the nearest router (Column 15, lines 6-9) over the first wire line subnet (Column

12, lines 45-48. Figure 11A subnet containing host 1106) to the first base station (Figure

11A, BS 1110) as determined by the shadow address (Column 13, lines 30-50. Shadow

address is the MAC address) and over the second wire line subnet (Figure 11A subnet

containing host 1107) to the second base station (Figure 11A, BS1155) based upon the

second IP address.

Regarding claim 2, Agrawal disclosed the method as recited in claim 1 wherein

the storing includes assigning the shadow address by the first base station (Column 13,

lines 30-50. Shadow address is the MAC address and assigned by Base station (Column 13, lines 4-23).

Regarding claims 3, 8 & 11, Agrawal disclosed communicating the shadow address from the first base station to the sending device in response to an address resolution request by the sending device (Column 13, lines 24-50. Shadow address is the MAC address)

Regarding claims 4 & 9, Agrawal disclosed the method as recited in claim 1 further comprising, after the transmitting, concurrently sending the packet from both the first base station and the second base station to the mobile station using a link layer frame compatible with the link layer of the wireless network (Figure 11A. Column 13, lines 30-50. Column 12, lines 45-47. Layer 2 communications between BS and mobile terminal compatibility between sub-networks).

Regarding claim 5, Agrawal disclosed the method as recited in claim 1 wherein the storing includes storing the first IP address and the shadow address for the mobile station as entries in a watch list in the first base station (Column 13, lines 61-67. Forwarding table like table 1 on column 14 corresponding between the IP address and the shadow address or the MAC address).

Regarding claim 6, Agrawal disclosed the method as recited in claim 1 further comprising, prior to the communicating, sending the shadow address from the first base station to the mobile station and storing the shadow address in the mobile station (Figure 13, boxes 1304 & 1303. Column 13, lines 30-50. MAC address or shadow address is stored in the mobile terminal).

Regarding claims 10 & 15, Agrawal disclosed a method for carrying out soft

handoff of a mobile station from a first base station (Figure 11A, BS1110) served by a

first wire line subnet (IP network containing host 1106. Column 12, lines 45-48) to a

second base station (Figure 11A, BS1150) served by a second wire line subnet (IP

network 101 containing host 1107. Column 12, lines 45-48), wherein each subnet has a

link layer different than the link layer of the wireless network serving the mobile station

(Column 12, lines 45-61. Soft hand-off occur at layer 2); and the mobile station has

initially a first IP address compatible with the first wire line subnet (Column 13, lines 52-

60) and wherein the first base station is served by a nearest router (Column 15, lines 7-

9), the method comprising:

Identifying a nearest router serving the first base station (Column 15, lines 7-9).

Assigning a shadow address to a mobile station by the first base station, the

shadow address having the same format as the link layer address of the first wire line

subnet (Column 12, lines 45-48. Column 13, lines 30-50. Shadow address is the MAC

address).

Storing the shadow address and the first IP address in the nearest router

(Column 13, lines 61-67; column 14, lines 23-50. Addresses stored in forwarding table

which can be residing in router as indicated in column 15, lines 7-9),

Assigning a second IP address (Figure 11A. Mobile terminal is assigned with a

second IP address when the terminal move closer based on SNR to another base

station BS 1155. Column 12, lines 45-61. Column 13, lines 51-60) to the mobile station

compatible with the second wire line subnet.

Communicating the second IP address (Column 13, lines 50-59. New IP address

associated with BS1155) from the mobile station to nearest router (Column 15, lines 6-

9) via the first base station (Figure 11A, BS 1155), and

Transmitting a frame containing the packet as conveyed by the sending device

from the nearest router (Column 15, lines 6-9) over the first wire line subnet (Column

12, lines 45-48. Figure 11A subnet containing host 1106) to the first base station (Figure

11A, BS 1110) as determined by the shadow address (Column 13, lines 30-50. Shadow

address is the MAC address) and over the second wire line subnet (Figure 11A subnet

containing host 1107) to the second base station (Figure 11A, BS1155) based upon the

second IP address.

Propagating the packet from the first base station to the mobile station using the

IP layer of the wireless network, and concurrently propagating the packet from the

second base station using the IP layer of the wireless network (Column 13, lines 51-59).

Regarding claim 12, Agrawal disclosed the method as recited in claim 10 wherein

the propagating the packet from the first base station includes removing the packet from

the wire line frame (Figure 13, box 1312), passing the packet to the IP layer of the first

base station (Figure 13, box 1312), encapsulating the packet as a link layer wireless

frame Figure 13, box 1312), and propagating the link layer wireless frame over a radio

channel coupling the first base station with the mobile station (Figure 13, radio channel

between box 1311 representing the base station and box 1301 representing the mobile

terminal).

Regarding claim 13, Agrawal disclosed the method as recited in claim 10 wherein the propagating the packet from the second base station includes removing the packet from the wire line frame (Figure 13, box 1312), passing the packet to the IP layer of the second base station (Figure 13, box 1312), encapsulating the packet as a link layer wireless frame Figure 13, box 1312), and propagating the link layer wireless frame over a radio channel coupling the second base station with the mobile station (Figure 13, radio channel between box 1311 representing the base station and box 1301 representing the mobile terminal).

Regarding claim 14, Agrawal disclosed the method as recited in claim 10 wherein the propagating the packet from the first base station includes removing the packet from the wire line frame (Figure 13, box 1312), passing the packet to the IP layer of the first base station (Figure 13, box 1312), encapsulating the packet as a link layer wireless frame Figure 13, box 1312), and propagating the link layer wireless frame over a radio channel coupling the first base station with the mobile station (Figure 13, radio channel between box 1311 representing the base station and box 1301 representing the mobile terminal) and the propagating the packet from the second base station includes removing the packet from the wire line frame (Figure 13, box 1312), passing the packet to the IP layer of the second base station (Figure 13, box 1312), encapsulating the packet as a link layer wireless frame Figure 13, box 1312), and propagating the link layer wireless frame over a radio channel coupling the second base station with the mobile station (Figure 13, radio channel between box 1311 representing the base station and box 1301 representing the mobile terminal).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Le whose telephone number is 571-272-2246. The examiner can normally be reached on 8 AM -5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VL

CHI PHAM
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2600   7/22/05